UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/975,690	10/11/2001	William W. Lee	NY-THEOR 203.1-US	2373

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EXAMINER
CHOUDHURY, AZIZUL Q

ART UNIT	PAPER NUMBER
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

	Application No.	Applicant(s)
Office Action Summary	09/975,690	LEE ET AL.
	Examiner	Art Unit
	Azizul Choudhury	2145

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on <u>5/16/07</u>.

2a)☐ This action is **FINAL.**   2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-20* is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-20* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on <u>18 January 2002</u> is/are: a)☒ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All b)☐ Some * c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☒ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☐ Information Disclosure Statement(s) (PTO/SB/08)
    Paper No(s)/Mail Date _____.

4)☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____.

5)☐ Notice of Informal Patent Application

6)☐ Other: _____.

Detailed Action

This office action is in response to the correspondence received on May 16,

2007.

Response to Amendment

In lieu of the applicant's arguments in combination with the finding of new more

pertinent prior art, the finality of the rejection of the last Office action is withdrawn.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 1-12 and 16-20 are rejected under 35 U.S.C. 103(a) as being

unpatentable over Coad et al (US Patent No: 6,931,625) in view of Bowman-Amuah

(US Patent No: 6,332,163), hereafter referred to as Coad and Bowman-Amuah,

respectively.

1. With regards to claim 1, Coad teaches through Bowman-Amuah, a method of

   generating code for Enterprise JavaBean (EJB) components from a business

   process, comprising the steps of: graphically modeling said business process

   (Coad's "software project is equivalent to the claimed business process; see

   column 2, lines 15-16 and column 3, lines 38-49, Coad) using a UML drawing

tool *(see column 1, lines 34-52 and column 7, lines 30-40, Coad)* to provide an UML model having a plurality of EJB Classes *(see column 5, lines 12-40, Coad)*; defining relationships between said plurality of EJB classes *(column 5, lines 26-40, Coad)*; stereotyping each of said plurality of EJB classes into one or more EJB components *(equivalent to inheritance; see column 4, line 20 and column 4, line 59, Coad)*; transforming each of said EJB components into EJB source code *(see column 4, lines 1-26, Coad)*; and embedding code marker; in said EJB source code to enable subsequent updates to said EJB source code

However, Coad fails to disclose the use of code markers to enable updates. In the same field of endeavor, Bowman-Amuah teaches how flags (deemed equivalent to code markers) are placed to indicate where updates are to occur (column 285, lines 19-20, Bowman-Amuah). Therefore it would have been obvious to one skilled in the art, during the time of the invention, to have combined the teachings of Coad with those of Bowman-Amuah to provide business processes and classes (see column 176, lines 33-35, Bowman-Amuah).

2. With regards to claim 2, Coad teaches through Bowman-Amuah, the method further comprising the step of compiling said EJB source code to generate EJB application in accordance with deployment properties *(see column 5, lines 12-66, Coad)*.

3. With regards to claim 3, Coad teaches through Bowman-Amuah, a method further comprising the step of deploying said EJB application to a server using one of the following: bean managed persistence or container managed persistence *(see Figure 173, Bowman-Amuah).*

4. With regards to claim 4, Coad teaches through Bowman-Amuah, a method wherein the step of stereotyping stereotypes an EJB class into at least one of the following Smart EJB component: Belonging, Session, Entity, Configurable Entity, Business Policy and Workflow *(Coad teaches EJB Session components; see column 4, lines 62-67, Coad).*

5. With regards to claim 5, Coad teaches through Bowman-Amuah, a method wherein an Entity EJB component comprises at least one interface *(see column 10, lines 41-43, Bowman-Amuah)* and two EJB classes *(see column 289, lines 23-56, Bowman-Amuah).*

6. With regards to claim 6, Coad teaches through Bowman-Amuah, the method wherein said Entity EJB component being associated with a Primary Key class and a Value class *(see column 277, line 41, Bowman-Amuah).*

7. With regards to claim 7, Coad teaches through Bowman-Amuah, the method

wherein each EJB component includes at least one of the following: name,

stereotype, attribute and method *(see column 107, lines 40, Bowman-Amuah).*

8. With regards to claim 8, Coad teaches through Bowman-Amuah, the method

wherein each attribute includes a pair of accessor methods *(see column 204, line*

62 – column 205, line 4, Bowman-Amuah).

9. With regards to claim 9, Coad teaches through Bowman-Amuah, the method

wherein said relationships includes at least one of the following: inheritance and

aggregation *(see column 4, line 20 and column 4, lines 59-60, Coad).*

10. With regards to claim 10, Coad teaches through Bowman-Amuah, the method

wherein said aggregation includes multiplicity *(see column 4, lines 59-60 for*

aggregation; multiplicity is an inherent feature of UML; Coad).

11. With regards to claim 11, Coad teaches through Bowman-Amuah, a method

further comprising the steps of: determining if said multiplicity relationship is one

to many; and stereotyping said aggregation relationship into a collection type if it

is determined that said multiplicity relationship is one to many *(see column 53,*

lines 25-30, Coad).

12. With regards to claim 12, Coad teaches through Bowman-Amuah, the method wherein said collection type includes one of the following: Set, Array, List or Map *(The claimed Set, Array, List, or Maps are all data structures, and Bowman-Amuah allows collection types to comprise of data structures; see column 53, lines 25-30, Coad).*

13. With regards to claim 16, Coad teaches through Bowman-Amuah, the method wherein the step of transforming includes the step generating said EJB codes according to a Code Template Dictionary *(equivalent to Attribute Dictionary; see column 201, lines 30-46, Bowman-Amuah).*

14. With regards to claim 17, Coad teaches through Bowman-Amuah, the method wherein said Code Template Dictionary includes key-value pair entries *(see column 201, lines 30-46, Bowman-Amuah).*

15. With regards to claim 18, Coad teaches through Bowman-Amuah, the method wherein values of said Code Template Dictionary represent EJB code templates *(see column 201, lines 30-46, Bowman-Amuah).*

16. With regards to claim 19, Coad teaches through Bowman-Amuah, the method wherein the step of embedding includes the step of adding business logic code between said code markers *(Bowman-Amuah teaches how flags (deemed*

equivalent to code markers) are placed/embedded to indicate where updates are

to occur (column 285, lines 19-20, Bowman-Amuah)).

17. With regards to claim 20, Coad teaches through Bowman-Amuah, the method

further comprising the step of synchronizing said UML model with said business

logic code, thereby providing support for iterative development cycle *(see column*

5, lines 12-40, Coad).

18. The obviousness motivation applied to claim 1, are applicable to claims 2-12 and

16-20.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set
> forth in section 102 of this title, if the differences between the subject matter sought to be patented and
> the prior art are such that the subject matter as a whole would have been obvious at the time the
> invention was made to a person having ordinary skill in the art to which said subject matter pertains.
> Patentability shall not be negatived by the manner in which the invention was made.

Claims 13-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Coad

et al (US Patent No: 6,931,625) in view of Bowman-Amuah (US Patent No:

6,332,163) and in further view of Elmore et al (US PGPUB No: US

20060059107A1), hereafter referred to as Coad, Bowman-Amuah and Elmore,

respectively.

19. With regards to claim 13, Coad teaches through Bowman-Amuah and Elmore, the method wherein each EJB component is a Smart Component having at least one Smart Feature *(see paragraph 756, Elmore)*.

20. With regards to claim 14, Coad teaches through Bowman-Amuah and Elmore, the method wherein said Smart Feature includes one of the following: SmartKey, SmartHandle and SmartValue *(see paragraphs 67 and 83, Elmore)*.

21. With regards to claim 15, Coad teaches through Bowman-Amuah and Elmore, the method wherein said Smart component is an eBusiness Smart Component *(see paragraph 8, Elmore)*.

22. For claims 13-15, Coad and Bowman-Amuah teach EJB designs however, they fail to disclose Smart Components. In the same field of endeavor, Elmore teaches the use of such Smart Components *(see paragraph 8, Elmore)*. Therefore it would have been obvious to one skilled in the art, during the time of the invention, to have combined the teachings of Elmore with those of Coad and Bowman-Amuah, to provide a flexible design that makes it easy to add capabilities as the communications service provider's business evolves *(see paragraph 8, Elmore)*.

Response to Remarks

Applicant's arguments, filed May 16, 2007, with respect to the rejection(s) of

claim(s) 1-20 under Iyengar and Thomas have been fully considered and are

persuasive. Therefore, the rejection has been withdrawn. However, upon further

consideration, a new ground(s) of rejection is made in view of Coad, Bowman-Amuah

and Elmore.

Conclusion

Any inquiry concerning this communication or earlier communications from the

examiner should be directed to Azizul Choudhury whose telephone number is (571)

272-3909. The examiner can normally be reached on M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Jason Cardone can be reached on (571) 272-3933. The fax phone number

for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the

Patent Application Information Retrieval (PAIR) system. Status information for

published applications may be obtained from either Private PAIR or Public PAIR.

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For more information about the PAIR system, see http://pair-direct.uspto.gov. Should

you have questions on access to the Private PAIR system, contact the Electronic

Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a

USPTO Customer Service Representative or access to the automated information

system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

JASON CARDONE
SUPERVISORY PATENT EXAMINER

AC